

# ***MSS***™

## ***Modular Stock System***

**Magpul Industries Corp**

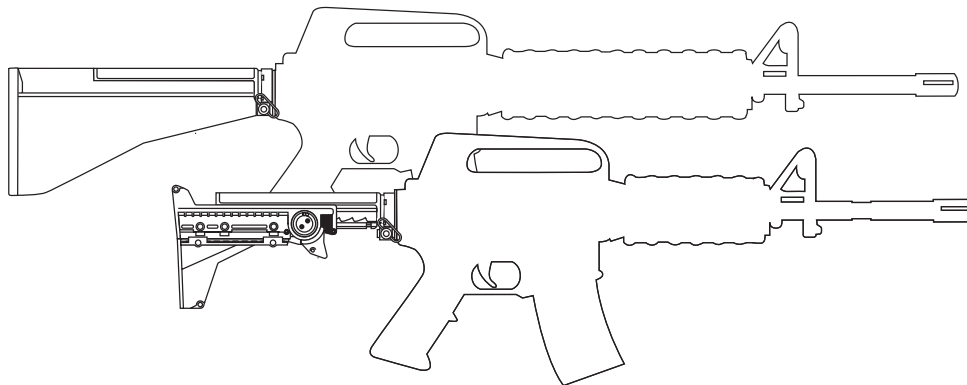
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# M16 / M4 Modular Stock System (MSS)

## Introduction to the Modular Stock System

The Modular Stock System (MSS) is a complete stock solution being developed by Magpul Industries Corp, Boulder Colorado. It is designed to replace the buffer tube and stock assembly of the M16 Rifle and M-4 Carbine but can also be adapted to other types of weapon systems.

The patent pending MSS features a receiver extension tube, which acts as a base modular base for other fixed and collapsible stocks. An individual soldier without the expertise of an armorer can accomplish changing the stock configuration.

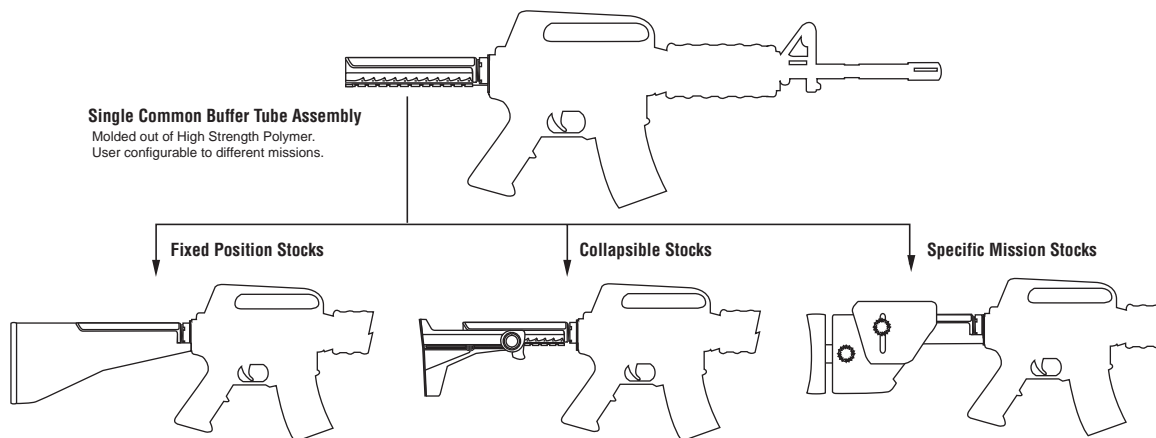


By unifying the buffer tube assembly, the user can tailor the stock to the particular mission involved. In addition to providing flexibility with different types of fixed length stocks, the MSS also has a vastly improved collapsible carbine stock.

## MSS Common Buffer Tube Assembly

The heart of the MSS is a common buffer tube assembly that allows the use of different stock types, configurable to different missions.

These are examples of the three main types of stocks the MSS can accommodate:



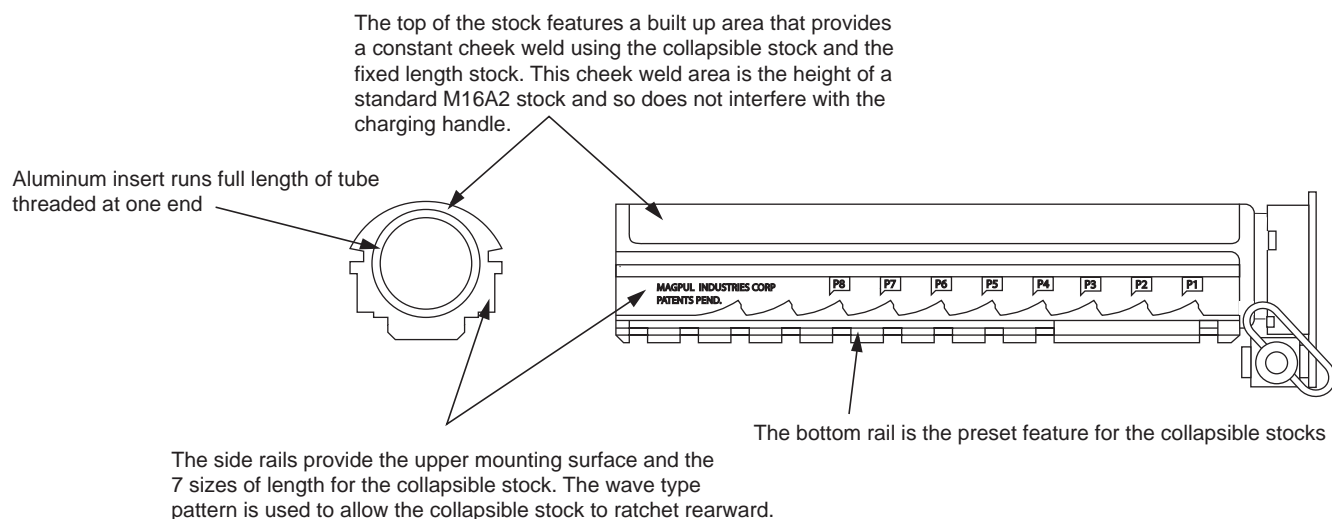
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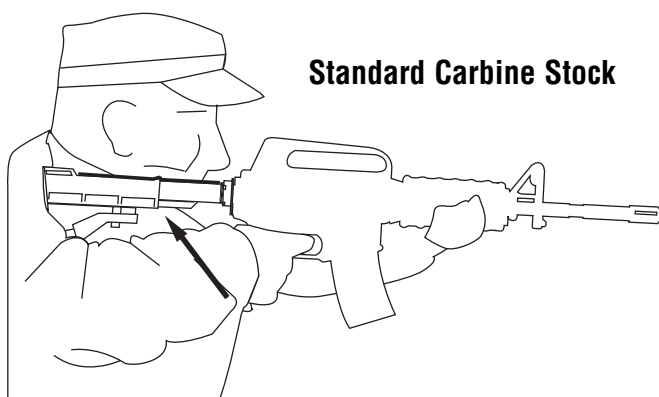
## MSS Common Buffer Tube Assembly - Detail

Unlike the current metal buffer tube, the MSS tube will be molded out of a high strength carbon/nylon material over a full length aluminum tube which contains the threads. It will be half an inch longer than the current carbine buffer tube but will be able to use the standard carbine buffer and spring.

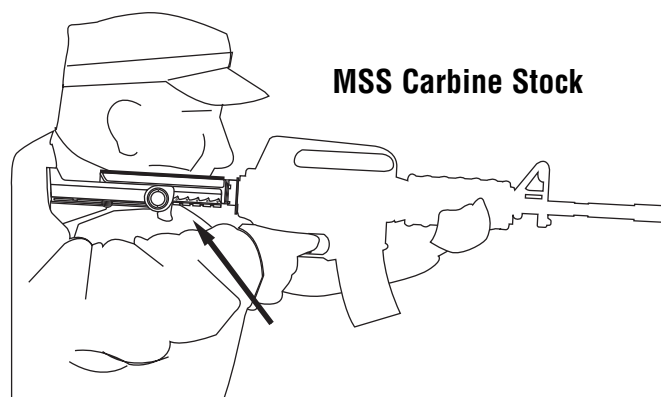
The common buffer tube assembly has features molded into it allow it to serve its multiple functions.



## Examples of Cheek Welds (Conventional vs MSS)



Notice the Cheek Weld is half on, half off the stock. Not only is this very different than the standard stock, Cheek weld also changes dramatically depending on what position the collapsible stock is locked in.



Here the cheek rests in a straight line at the same height as the standard fixed stock. It also remains constant throughout the 11 preset sizes of the collapsible stock

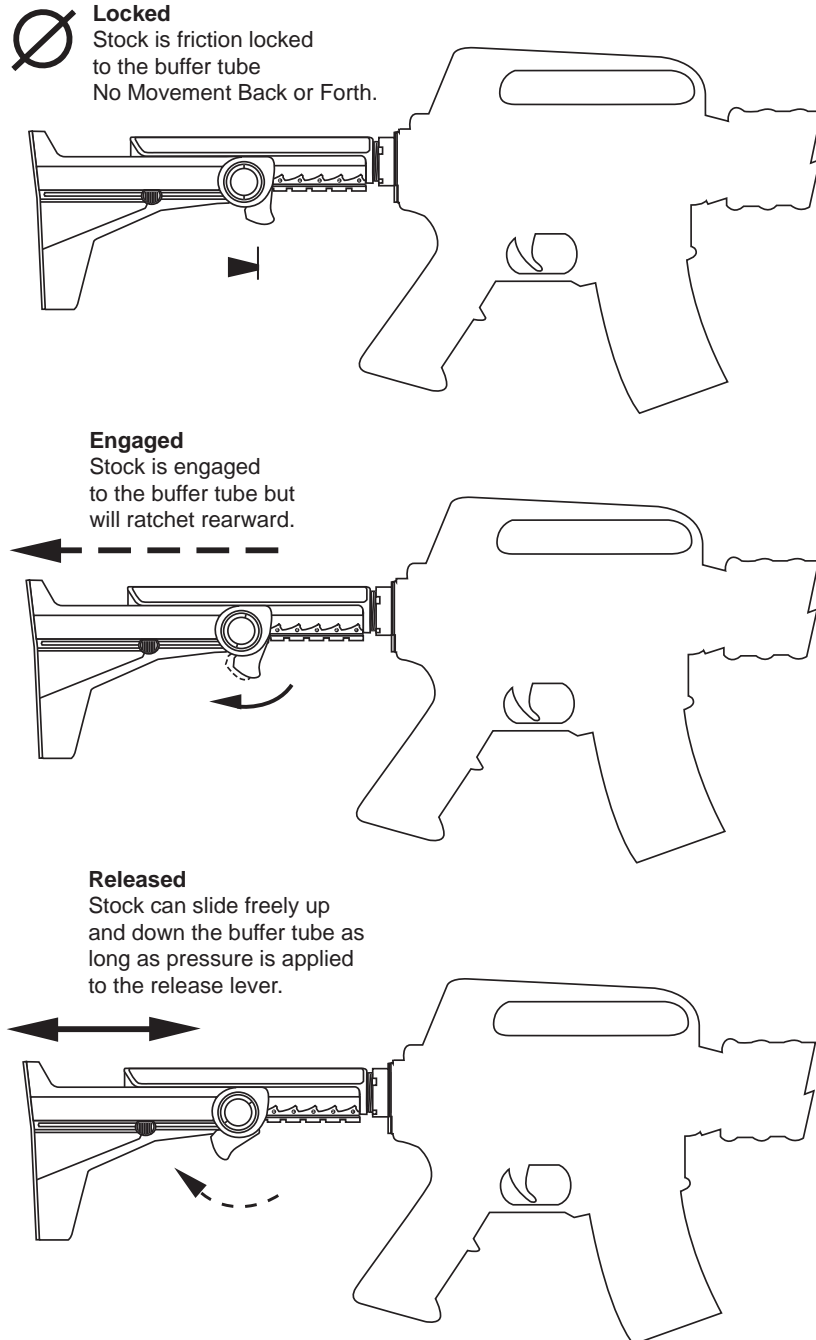
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## MSS Collapsible Stock- Lock and Release Feature

### Simple Operation

The MSS Collapsible Carbine uses a single spring loaded lever designed to be operated with one hand. As demonstrated in the drawings, pulling to the rear of the lever releases the stock to travel. Pushing forward friction locks the stock in place as a single unit (no rattling).

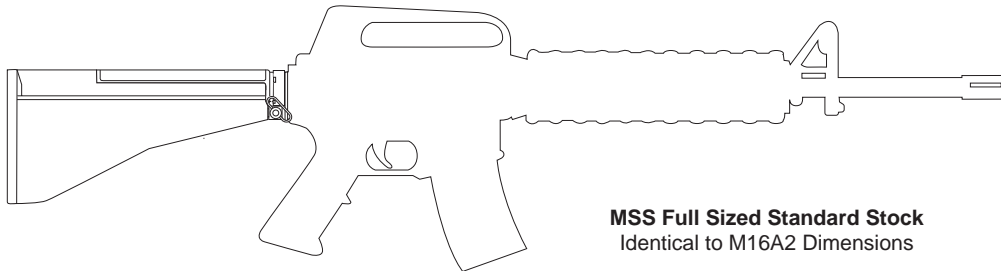


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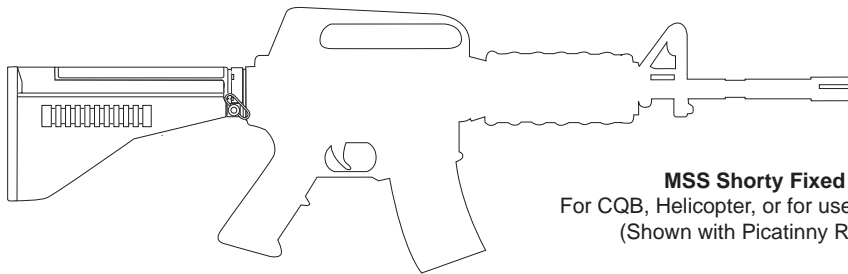
# M16 / M4 Modular Stock System (MSS)

## Fixed Stock Configurations

### Fixed Position Stocks

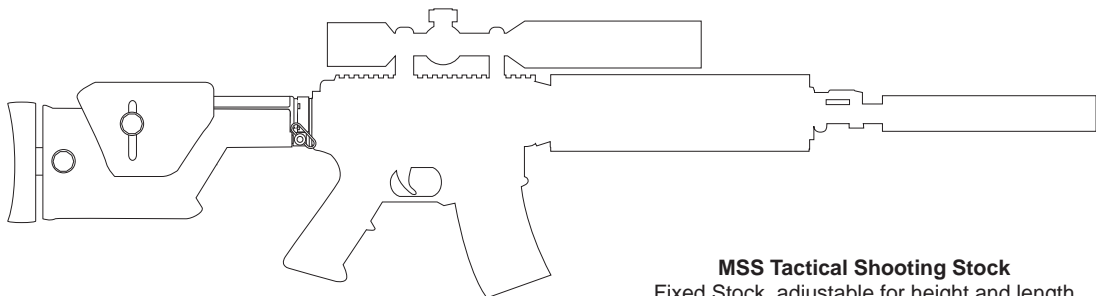


**MSS Full Sized Standard Stock**  
Identical to M16A2 Dimensions



**MSS Shorty Fixed Stock**  
For CQB, Helicopter, or for use with Body Armor  
(Shown with Picatinny Rail Mounts)

### Specific Mission Stocks

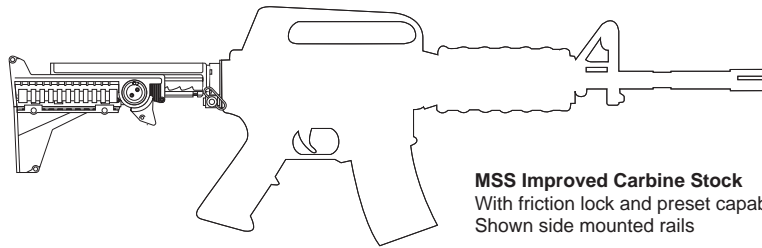


**MSS Tactical Shooting Stock**  
Fixed Stock, adjustable for height and length

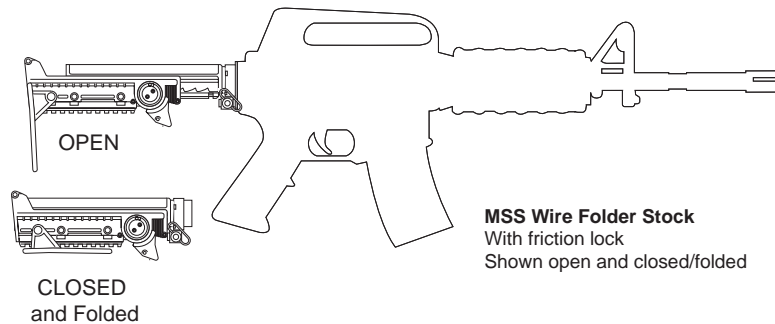
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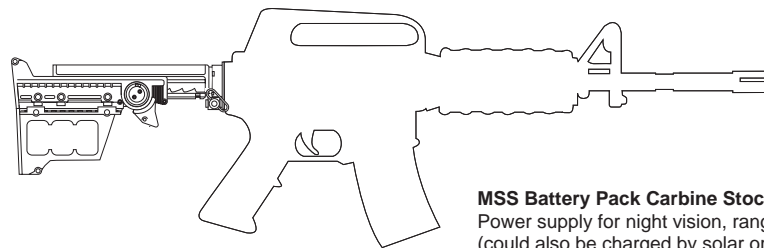
## Mission Adaptable Carbine Stock Configurations



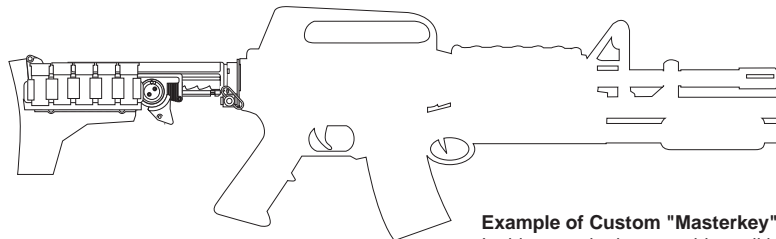
**MSS Improved Carbine Stock**  
With friction lock and preset capability  
Shown side mounted rails



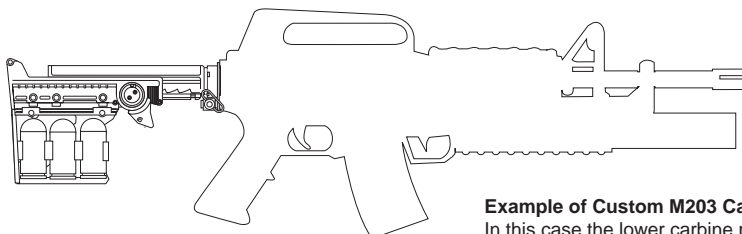
**MSS Wire Folder Stock**  
With friction lock  
Shown open and closed/folded



**MSS Battery Pack Carbine Stock**  
Power supply for night vision, range finders etc.  
(could also be charged by solar or hand crank)



**Example of Custom "Masterkey" Carbine Stock**  
In this case the lower carbine rail is used to mount  
Recoil pad suitable for a shotgun. It also uses a  
side rail to mount a shotgun shell carrier.



**Example of Custom M203 Carbine Stock**  
In this case the lower carbine rail is used to mount  
3x40mm grenades for use in an M203

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## **Summary of Features**

- An individual operator (without an armorer) can change the stock configuration.
- Weapon stocks can be changed easily for different types of missions.
- Consistent cheek weld from fixed position stocks to collapsible stocks.
- Consistent cheek weld when using the collapsible stock at different lengths.
- Carbine stock offers easy to use lock and release feature.
- When the carbines stock is locked in position it is immobile and friction locked to the buffer tube as a single solid unit.
- Carbine stock offers 7-8 positions and presets from completely closed to fully open.
- In its unlocked state, the carbine stock can be ratcheted back to the preset or any position forward of the preset. Note: Even in the unlocked state the stock will NOT travel forward, thus ensuring the capability for using the weapon in the unlocked state.
- New innovations such as power supply battery stocks or “Adjustable Marksman Stocks” can be quickly implemented and configured.
- For extreme flexibility the Mission Adaptable Carbine Stock offers mounting rails that allow a wide variety of equipment to be configured as part of the stock.

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## **Production Dates**

Working Prototypes - Sept 2001

Production Prototypes - Late 2001

Production & 1st Delivery of Orders - Early 2002

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Patents Pending - Copyright 2000-2001 - Magpul Industries Corp & Falcon Industries Inc.